Appln. No.: 10/511,010

Amendment Dated February 5, 2007

Reply to Office Action of November 7, 2006

Amendments to the Specification:

With reference to the substitute specification, please amend the specification as follows:

- 1. Please add the heading "Summary of the Invention" after paragraph [0002].
- 2. Please add the heading "Brief Description of the Drawings" after paragraph [0003].
- 3. After the heading "Brief Description of the Drawings", which is to be added after paragraph [0003], please add the following paragraphs:

The following description will be better understood in conjunction with the drawing figures, of which:

Figure 1 is a cross-sectional view of an electromagnetic valve in accordance with a first embodiment of the invention.

Figure 2 is a cross-sectional view of an electromagnetic valve in accordance with a second embodiment of the invention.

4. Please replace paragraph [0004] with the following replacement paragraph:

[0004] Figure 1 shows a considerably enlarged longitudinal cross-sectional view of an electromagnetic valve including a one-part deepdrawn valve housing 1 of thin-walled design that accommodates a separate retaining collar 2 seated on the outside periphery of the valve housing and attached by means of laser welding, said retaining collar being made by non-cutting shaping, e.g. as a cold-heading part. The outside periphery of the substantially disc-shaped retaining collar 2 is configured as a calking punch so that it is press-fitted with its undercut extending along the periphery with the ready-made valve housing 1 in a stepped accommodating bore of a block-shaped valve carrier 4. The soft material of the valve carrier is displaced during the pressing operation into the undercut for fastening and sealing purposes. Above the retaining collar 2, the open end portion of the sleeve-shaped valve housing 1 is closed by means of a plug 14 additionally assuming the function of a magnet core. Likewise plug 14 is a low-cost cold-heading part that is manufactured with a sufficient rate of precision and laser-welded at its outside periphery with the valve housing 1. Disposed below the plug

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14 is a magnet armature 15 being manufactured equally very inexpensively from a round or many-sided profile by means of cold-heading or extruding operations, respectively. Magnet armature 15, under the effect of a compression spring 16, closes in the valve's basic position a first valve passage 5 arranged in a second valve closure member 8 by means of the first valve closure member 7 that is fitted to the tappet-shaped extension of the magnet armature 15. To this end, the first valve closure member 7 is expediently fitted as a hemisphere at the tappet portion that is attached in a bore of the magnet armature 15 by means of self-calking. The second valve closure member 8 is substantially designed as a bowl-shaped deepdrawn part acted upon in the valve's closing position of the first valve closure member 7 by the effect of a spring 17.

5. Please replace paragraph [0008] with the following replacement paragraph:

In addition, the electromagnetic valve is characterized in that the spring 17 is [8000] arranged outside the flow route that can connect the pressure fluid inlet 13 to the pressure fluid outlet 19. For this purpose, stop 3 is inserted remote from the flow route into the valve housing 1, at which stop the end of spring 17 remote from the second valve closure member 8 is supported. Consequently, spring 17 is not arranged in the flow route but above the transverse bores 21, 22 at stop 3. Stop 3 is secured to a housing step 19 of the valve housing 1 to this end. Said housing step [[19]] 24 is arranged above the transverse bore 21 extending through the valve housing 1. Stop 3 is designed as a sleeve bowl widely opened in the bowl bottom and having an opening in which the second valve closure member 8 is guided and centered in the direction of the valve seat member 27. The one end of spring 17 is supported on the bowl bottom of stop 3. The bowl edge remote from the bowl bottom is angled off towards the inside wall of the valve housing 1. The result is that an annular chamber 25 accommodating spring 17 is positioned between the outside periphery of the sleeve bowl and the inside wall of the sleeve-shaped valve housing 1 and constitutes a permanent pressure fluid communication between the pressure fluid inlet 13 and a magnet armature chamber 26 by way of pressure compensating openings 18 arranged in the valve housing 1 and at the periphery of the sleeve bowl. Stop 3 and valve sleeve housing 1 consist of a deepdrawn thin sheet wherein the pressure compensating openings 18 are punched or impressed. Especially small valve parts that can be manufactured at low cost and with precision are achieved thereby.

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6. Please replace paragraph [0010] with the following replacement paragraph:

[0010] The second valve closure member [[8]] 7 is configured as a sleeve bowl whose bowl bottom accommodates the first valve passage 5 cooperating with the second valve closure member 7. Close to the bowl bottom, transverse bores 22 penetrate the peripheral surface of the sleeve bowl and are positioned in the horizontal plane of the transverse bore 21 to provide a flow route that is free from rerouting, if possible. Opposite to the bowl bottom, an edge is provided at the sleeve bowl that is angled-off in the direction of the sleeve-shaped stop 3 and on which the second end of spring 17 remote from stop 3 is supported. Designing the stop 3 as a sleeve portion radially spaced from the inside wall of the valve housing 1 includes the advantage that the forces that act from the retaining collar 2 on the valve sleeve 1 during the press fit operation of the electromagnetic valve are accommodated by the annular chamber 25 in the case of a deformation of the valve housing 1 and do not act on the second valve closure member 8. This prevents the second valve closure member 8 from being damaged and jammed, even if relatively significant tolerance variations occur. The sleeve bowl is of light weight, small and inexpensive, and is manufactured preferably by deepdrawing from a thin sheet.